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Conference Abstract

Containing the Spirits: Lessons learned from the Management of Australasian Herbarium Wet Collections.

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Abstract

Several herbaria in Australia and New Zealand have recently been required to implement changes to the way in which spirit (alcohol or wet) specimens are managed in their institutions in order to deal with various curatorial and staff health and safety challenges. We will present an overview of some of the key lessons learned from addressing issues such as mould, FAA (formalin-acetic acid and alcohol solution), inadequate housing and storage of our spirit specimens whilst also ensuring that best-practice curation standards are implemented along with appropriate work health and safety practices to protect staff.

For example, the National Herbarium of New South Wales spirit collection was stored until 2017 in metal filing cabinets and open wooden shelving. Due to unstable air-conditioning resulting in high humidity and condensation, mould had formed on all of the bottles and on all wooden surfaces. The external surface of each bottle was cleaned with prior to removal from the dedicated spirit collection room, the wooden shelving was replaced with open

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metal shelving, and room cleaned and resealed prior to return of the collection. Monitoring of the environment and condition of the collection continues, and future actions include replacing the specimen vials, many of which have failing lids.

The Western Australian Herbarium recently renovated its spirit storage area from specimens stored in boxes on fixed open shelving to individual bottles filed in metal drawers. Health and safety concerns for staff handling heavy boxes, often up ladders, combined with the inflexible and inefficient use of space on fixed shelving are now solved. Plenty of space is available for specimen expansion, and the ease of access to each specimen makes the collection simple to maintain. The next step for the collection is to protect it better by implementing climate control.

FAA was used as a fixative and preservative for plant fruit, flowers and other parts pre-1992 at the Australian National Herbarium in Canberra and the Australian Tropical Herbarium in Cairns. In response to changes in the Hazardous Substance classification for Formaldehyde a program was developed that focused on worker safety during replacement of the solution in approximately 15,000 bottles by minimising exposure and managing the manual handling risks of the work, whilst also ensuring best-practice curatorial outcomes for the specimens.

This is a presentation on behalf of the Managers of Australasian Herbarium Collections (MAHC), a network of herbarium Collection Managers in Australia and New Zealand.

Keywords

Spirit, fluid preserved specimens, health and safety, mould, FAA, formalin-acetic acid, alcohol, storage, best-practice, conservation, herbaria

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